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ORDER R4-2018-0089

NPDES NO. CA0063401

WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR WEST BASIN MUNICIPAL WATER DISTRICT, EDWARD C. LITTLE WATER RECYCLING FACILITY, DISCHARGE TO THE PACIFIC OCEAN, VIA THE HYPERION TREATMENT PLANT (HTP) "FIVE-MILE OUTFALL"

The following Permittee is subject to state Waste Discharge Requirements (WDRs) and federal National Pollutant Discharge Elimination System (NPDES) permit requirements, as set forth in this Order:

Table 1. Discharger Information

Discharger	West Basin Municipal Water District[1]
Name of Facility	Edward C. Little Water Recycling Facility (LWRF)
Facility Address	1935 South Hughes Way
	El Segundo, CA 90245
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
HTP discharge pipe between the gravity valve and the Ocean outfall diffuser[2]	Untreated brine waste (from reverse osmosis treatment)	33.909722	118.392222	HTP secondary-treated effluent
001[3](HTP Discharge Point 002) North Leg South Leg	Untreated brine waste commingled with HTP secondary-treated effluent	33.911967 33.919333 33.900650	118.521450 118.528483 118.527267	Pacific Ocean
SW-002 and SW-003[4] Storm sewer at South Hughes Way	Storm water runoff	33.9086 33.9088	118.3927 118.3917	El Segundo retention basin/ Dominguez Channel

1 The West Basin Municipal Water District (West Basin) is a public agency providing wholesale potable water and recycled water, to local water utility companies, industries, municipalities, and a seawater intrusion barrier project.

2 The HTP gravity valve is located near Gate B at HTP. LWRF brine effluent enters the discharge brine pipeline to the "five-mile outfall", downstream of the gravity valve, before the pump station discharge.

3 Discharge Point 001 in this Order and previous Order No. R4-2012-0026 corresponds to HTP Discharge Point 002 ("five-mile outfall") in the HTP Order R4-2017-0045 (NPDES No. CA0109991).

4 Storm water runoff is discharged through Discharge Points SW-002 and SW-003 to an El Segundo storm drain which discharges to an unlined retention basin. Automatically controlled pumps transfer the

Table 3. Administrative Information for State Order

The first hearing for this Order was held on:	April 12, 2018
This Order was adopted on:	June 14, 2018
This Order shall become effective on:	September 1, 2018
This Order shall expire on:	August 31, 2023
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date (Title 40, Code of Federal Regulations, part 122.21(d))
The United States Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Deborah J. Smith, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 14, 2018.

Deborah J. Smith, Executive Officer

Table 4. Administrative Information for Federal Permit

The first hearing for this Order was held on:	April 12, 2018
This Permit was adopted on:	June 14, 2018
This Permit shall become effective on:	September 1, 2018
This Permit shall expire on:	August 31, 2023
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Permit expiration date (Title 40, Code of Federal Regulations, part 122.21(d))
The United States Environmental Protection Agency and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Tomás Torres, do hereby certify that this Permit with all attachments is a full, true, and correct copy of the Order adopted by the United States Environmental Protection Agency Region IX, on:

July 10, 2018
Date

Tomás Torres, Water Division Director

contents of the basin to a storm sewer discharging to Dominguez Channel if the liquid level exceeds a high level setpoint. The storm water does not comingle with process water or brine effluent.

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Edward C. Little Water Recycling Facility (LWRF) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) and the United States Environmental Protection Agency (USEPA), find:

A. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. **Background and Rationale for Requirements.** The Regional Water Board and USEPA developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.

C. **Notification of Interested Parties.** The Regional Water Board and USEPA have notified the West Basin Municipal Water District (West Basin) and interested agencies and persons of its intent to prescribe this Order for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

D. **Consideration of Public Comment.** The Regional Water Board in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R4-2012-0026, except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee is authorized to discharge from the identified facility and outfalls into waters of the United States and shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board or USEPA from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

B. Discharge to designated Areas of Special Biological Significance is prohibited.

C. Pipeline discharge of sludge to the ocean is prohibited by federal law. The discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited by the California Ocean Plan. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.

D. The treatment, use and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment.

E. The by-passing of untreated wastes containing concentrations of pollutants in excess of those in Table 1 or Table 2 of the California Ocean Plan is prohibited.

F. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Standard Provisions.

G. The discharge of waste that is not brine waste or storm water is prohibited.

H. The discharge of brine waste at any location different from Discharge Point 001, or storm water at Discharge Points SW-002 or SW-003, is prohibited and constitutes a violation of this Order/Permit. Waste discharged from Discharge Point 001 shall be limited to a maximum of 5.2 MGD of brine waste. The brine waste discharged through Discharge Point 001 shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in treatment.

I. The discharge shall not cause a violation of any applicable federal CWA water quality requirement, or water quality standard adopted by the Regional Water Board or State Water Board as required by the CWA and regulations adopted thereunder. If a more stringent applicable water quality standard is promulgated or approved pursuant to CWA section 303 and amendments thereto, the Regional Water Board and USEPA will revise and modify this Order in accordance with the more stringent standard.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

Effluent limitations for Discharge Point 001 are specified below. The discharge of treated wastewater with constituents in excess of effluent limitations is prohibited.

1. Final Effluent Limitations for Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, also known as HTP's "five-mile outfall', with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E.

Table 5. Effluent Limitations[1]

Parameter	Units	Average Monthly[2]	Average Weekly	Maximum Daily[3]	6 month median	Annual Average	Instan-taneous Minimum	Instan-taneous Maximum[4]
Total Suspended Solids (TSS)	mg/L	60	--	--	--	--	--	--
	lbs/day[5]	2,600	--	--	--	--	--	--
pH	standard units	--	--	--	--	--	6.0	9.0

1 The minimum dilution ratio used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Point 001 is based on two mixing events, one as the effluent mixes with Hyperion effluent in the pumping facility (40:1) and another where the combined effluents are discharged into the Ocean (96:1), for an entire dilution ratio of (40*(96+1)) = 3,880 parts seawater and effluent to one part brine.

2 For intermittent discharges, the daily value used to calculate the average monthly values shall be considered to equal zero for days on which no discharge occurred.

3 The maximum daily effluent limitations shall apply to 24-hour composite samples.

4 The instantaneous maximum effluent limitations shall apply to grab samples.

Parameter	Units	Average Monthly[2]	Average Weekly	Maximum Daily[3]	6 month median	Annual Average	Instan-taneous Minimum	Instan-taneous Maximum[4]
Oil and Grease	mg/L	25	40	--	--	--	--	75
	lbs/day[5]	1,080	1,730	--	--	--	--	3,250
Settleable Solids	ml/L	1.0	1.5	--	--	--	--	3.0
Turbidity	NTU	75	100	--	--	--	--	225
Ammonia	mg/L	--	--	7,500	346	--	--	--
	lbs/day[5]	--	--	325,000	15,000	--	--	--
Chlorine Residual	µg/L	--	--	32,000	8,000	--	--	239,000
	lbs/day[5]	--	--	1,400	350	--	--	10,400
DDT	g/yr	--	--	--	--	10.1*Q[6]	--	--
Total Polychlorinated Biphenyls (PCBs)	g/yr	--	--	--	--	0.271*Q[6]	--	--

b. **Temperature:** The temperature effluent limitation for LWRF shall not exceed a maximum daily value of 100°F.

c. **Radioactivity**: Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253 of the California Code of Regulations. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

d. The Permittee shall ensure that bacterial concentrations in the effluent discharged from Discharge 001 do not result in an exceedance of zero (0) days exceedance of single sample numeric limits or geometric mean limits (based on Basin Plan bacteria objectives for marine waters designated REC-1, see Section V.A.1.b and Santa Monica Bay Bacteria TMDL) at shoreline compliance points, as specified in Regional Water Board Resolutions Nos. 2002-004 and 2002-022.

e. Waste discharged to the ocean must be essentially free of:

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[5] The mass emission rates are calculated using 5.2 MGD, consistent with the water-quality based limits in the previous permit: lbs/day = 0.00834 x Ce (effluent concentration in µg/L) x Q (flow rate in MGD).

[6] The total mass load for DDT and PCB from the Joint Water Pollution Control Plant, HTP, and West Basin's Water Recycling Plants shall not be more than 14,567 g/yr for DDT and 351 g/yr for PCB. The Discharger is deemed in compliance with these group water quality based effluent limitations (WQBELs) for DDT and PCBs if it is in compliance with the individual mass-based WQBELs for DDT and PCBs in Table 5 Effluent Limitations. This is the Waste Load Allocation (WLA) and the final effluent limitation for LWRP in accordance with the *Santa Monica Bay Total Maximum Daily Load for DDTs and PCBs (Santa Monica Bay TMDL for DDTs and PCBs)* promulgated by USEPA on March 26, 2012.

LWRP WLA = $C_{HTP} * Q_{HTP\ to\ LWRF}$

Where:

C_{HTP} is the concentration-based WLA for the Hyperion effluent

$Q_{HTP\ to\ LWRF}$ is the flow diverted from Hyperion to LWRP

For DDTs: LWRF WLA = $C_{HTP} * Q_{HTP\ to\ LWRP} = 10.1 * Q_{HTP\ to\ LWRF}$

For PCBs: LWRF WLA = $C_{HTP} * Q_{HTP\ to\ LWRP} = 0.271 * Q_{HTP\ to\ LWRF}$

i. Material that is or will become floatable upon discharge.

ii. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.

iii. Substances that will accumulate to toxic levels in marine waters, sediments or biota.

iv. Substances that significantly decrease the natural light to benthic communities and other marine life.

v. Materials that result in aesthetically undesirable discoloration of the ocean surface.

2. Interim Effluent Limitations (Not applicable)

B. Land Discharge Specifications (Not applicable)

C. Recycling Specifications

Recycling specifications are not established with this Order. West Basin produces recycled water under two separate Orders: Order R4-2006-0069 for groundwater injection and Order 01-043 for irrigation and industrial uses of Title 22 non-potable water.

V. RECEIVING WATER LIMITATIONS

The Permittee shall not cause a violation of the following water quality objectives.

A. Surface Water Limitation

Compliance with these water quality objectives shall be determined by samples collected at monitoring stations outside the zone of initial dilution and identified in the HTP Order R4-2017-0045. The receiving water monitoring is conducted by the City of Los Angeles to ensure the combined HTP effluent and LWRF brine discharge is in compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Ocean Plan and the Basin Plan.

1. **Bacterial Characteristics**

a. USEPA Primary Recreation Criteria in Federal Waters

Ocean waters beyond the outer limit of the territorial sea shall not exceed the following 304(a)(1) criteria for *Enterococcus* density beyond the zone of initial dilution in areas where primary contact recreation, as defined in USEPA guidance, occurs. USEPA describes the "primary contact recreation" use as protective when the potential for ingestion of, or immersion in, water is likely. Activities usually include swimming, water-skiing, skin-diving, surfing, and other activities likely to result in immersion. (*Water Quality Standards Handbook*, EPA-823-B-94-005a, 1994, p. 2-2.)

i. 30-day Geometric Mean (per 100 mL): 35

ii. Single sample Maximum (per 100 mL): 104 for designated bathing beach; 158 for moderate use; 276 for light use; 501 for infrequent use.

b. State/Regional Water Contact Standards[7]

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board or USEPA (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

i. 30-day Geometric Mean Limits

(a) Total coliform density shall not exceed 1,000/100 mL.

(b) Fecal coliform density shall not exceed 200/100 mL.

(c) *Enterococcus* density shall not exceed 35/100 mL.

ii. Single Sample Maximum Limits (SSM)

(a) Total coliform density shall not exceed 10,000/100 mL.

(b) Fecal coliform density shall not exceed 400/100 mL.

(c) *Enterococcus* density shall not exceed 104/100 mL.

(d) Total coliform density shall not exceed 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period). If any of the single sample limits are exceeded, the Regional Water Board and USEPA may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

c. The Initial Dilution Zone for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards

d. State Water Resources Control Board, Division of Drinking Water (DDW) Standards

DDW has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the California Code of Regulations, Title 17, section 7958, and they are identical to the objectives contained in subsection b, above. When a public beach or public water-contact sports area fails

[7] The State Water Resource Control Board (SWRCB) proposes to revise the water quality standards for bacteria in the Ocean Plan by adopting an Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy (Bacteria Ocean Plan Amendment). If such an amendment is adopted, and should it apply to discharge from LWRF, this Order may be reopened to revise the bacteria limits (see VI.C.1.p).

to meet these standards, DDW or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. DDW regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations (this incorporation by reference is prospective including future changes to the incorporated provisions as changes take effect), DDW imposes the same standards as contained in Title 17, California Code of Regulations, and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

e. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board and USEPA, the following bacterial objectives shall be maintained throughout the water column: The median total coliform density shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

2. **Physical Characteristics**

The waste discharged shall not:

a. cause floating particulates and oil and grease to be visible;

b. cause aesthetically undesirable discoloration on the ocean surface;

c. significantly reduce the transmittance of natural light at any point outside the initial dilution zone; and

d. change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

3. **Chemical Characteristics**

The waste discharged shall not:

a. cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste;

b. change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;

c. cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions.

d. cause concentration of substances (as set forth in Chapter II, Table 1 of the 2015 Ocean Plan) in marine sediments to be increased to levels that would degrade indigenous biota:

e. cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life;

f. contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota;

g. cause total chlorine residual exceeding 0.1 mg/L in the receiving water and shall not persist in the receiving water at any concentration that causes impairment of beneficial uses as a result of the discharge;

h. produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life; and

i. contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses.

4. **Biological Characteristics**

The waste discharged shall not:

a. degrade marine communities, including vertebrate, invertebrate, and plant species;

b. alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption;

c. cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health; and

d. contain substances that result in biochemical oxygen demand that adversely affects the beneficial uses of the receiving water.

5. **Radioactivity**

Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations -- (Not applicable)

C. Storm Water Requirements

Compliance with these water quality objectives shall be determined by samples collected at monitoring location Storm Sampling Points SSP-001 and SSP-002 (at Discharge Points SW-002 and SW-003).

1. Industrial storm water discharges from Discharge Points SW-002 and SW-003 and authorized non-storm water discharges (NSWDs) shall not cause or contribute to an exceedance of any applicable water quality standards in any affected receiving water.

2. Industrial storm water discharges from Discharger Points SW-002, and SW-003 and authorized NSWDs shall not adversely affect human health or the environment.

3. Industrial storm water discharges from Discharger Points SW-002, and SW-003 and authorized NSWDs shall not contain pollutants in quantities that threaten to cause pollution or a public nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Permittee shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.

b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board and USEPA, are prohibited.

c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

d. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.

e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board and USEPA.

f. The provisions of this Order are severable. If any provision of this Order or the application of any provision of this Order is found invalid, the remainder of this Order shall not be affected.

g. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.

h. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject to under section 311 of the CWA.

i. Discharge of wastes to any point other than specifically described in this Order is prohibited.

j. The Permittee shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the federal CWA and amendments thereto.

k. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility; and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

l. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

m. A copy of these waste discharge specifications shall be maintained at the discharge Facility so as to be available at all times to operating personnel.

n. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

o. The Permittee shall file with the Regional Water Board and USEPA a Report of Waste Discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.

p. The Permittee shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including

applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board and USEPA to local agencies.

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Permittee shall notify the Regional Water Board and USEPA of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board and USEPA, 30 days prior to taking effect.

r. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation, or some combination thereof, depending on the violation, or upon the combination of violations. Violation of any of the provisions of the NPDES program or of any provisions of this Order may subject the violator to any of the penalties described herein, or any combinations thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

s. CWC section 13387 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this Order is subject to a fine of not more than $25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment of not more than four years, or by both.

t. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.

u. The Permittee shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

   i. Name and general composition of the chemical,

   ii. Frequency of use,

   iii. Quantities to be used,

   iv. Proposed discharge concentrations, and

   v. USEPA registration number, if applicable.

v. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may

subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

w. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order that may endanger health or the environment, the Permittee shall notify the Chief of the Municipal NPDES Permitting Unit at the Regional Water Board by telephone (213) 576-6616, or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Regional Water Board within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-7449 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

x. CWC section 13385(h)(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR § 123.45 specifies the Group I and II pollutants. Pursuant to CWC section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

y. CWC section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.

z. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim, and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

aa. Violation of any of the provisions of this Order may subject the Permittee to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

3. The Permittee shall comply with the following USEPA Region 9 Standard Conditions

a. The following condition has been established to enforce applicable requirements of the Resource Conservation and Recovery Act. POTWs may not receive hazardous

waste by truck, rail, or dedicated pipe except as provided under 40 CFR § 270. Hazardous wastes are defined at 40 CFR § 261 and include any mixture containing any waste listed under 40 CFR § 261.31 through § 261.33. The Domestic Sewage Exclusion (40 CFR § 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a POTW and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

b. **Transfers by Modification:** Except as provided in 40 CFR § 122.61(b), this Permit may be transferred by the Permittee to a new owner or operator only if the Permit has been modified or revoked and reissued (under 40 CFR § 122.62(b)(2)), or a minor modification made (under 40 CFR § 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the CWA. (40 CFR § 122.61(a).)

c. **Automatic Transfers:** As an alternative to transfers under 40 CFR § 122.61(a), this Permit may be automatically transferred to a new permittee if: the notice includes a written agreement between the Discharger and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and the Water Division Director does not notify the Discharger and the proposed new permittee of his/her intent to modify or revoke and reissue the Permit. A modification under this paragraph may also be a minor modification under 40 CFR § 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement between the Discharger and the new permittee. (40 CFR § 122.61(b).)

d. **Minor Modification of Permits:** Upon the consent of the Permittee, the Water Division Director may modify the Permit to make the corrections or allowances for changes in the permitted activity listed under 40 CFR § 122.63(a) through (g), without following the procedures of 40 CFR § 124. Any permit modification not processed as a minor modification under 40 CFR § 122.63 must be made for cause and with 40 CFR § 124 draft permit and public notice as required in 40 CFR § 122.62. (40 CFR § 122.63.)

e. **Termination of Permits**: The causes for terminating a permit during its term, or for denying a permit renewal application are found at 40 CFR § 122.64(a)(1) through (4). (40 CFR § 122.64.)

f. **Availability of Reports**: Except for data determined to be confidential under 40 CFR § 2, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Water Board and USEPA. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential. (Pursuant to CWA section 308.)

g. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters. (Pursuant to CWA section 301.)

h. **Severability**: The provisions of this Order are severable, and if any provision of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby. (Pursuant to CWA section 512.)

i. **Civil and Criminal Liability**: Except as provided in standard conditions on Bypass and Upset, nothing in this Order shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance. (Pursuant to CWA section 309.)

j. **Oil and Hazardous Substances Liability:** Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under CWA section 311.

k. **State or Tribal Law:** Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by CWA section 510.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened and modified to incorporate new limits based on future reasonable potential analyses to be conducted based on on-going monitoring data collected by the Permittee and evaluated by the Regional Water Board and USEPA.

b. This Order may be reopened and modified to incorporate new mass emission rates based on an increase in LWRF design capacity of 5.2 MGD provided that the Permittee requests and conducts an antidegradation analysis to demonstrate that the change is consistent with the state and federal antidegradation policies

c. This Order may be modified, in accordance with the provisions set forth in 40 CFR § 122 to 124, to include new minimum levels (MLs).

d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments or the adoption of a TMDL for Santa Monica Bay Watershed Management Areas.

e. The Regional Water Board or USEPA may modify or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

f. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR § 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption and issuance. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

g. This Order may be modified, or revoked and reissued, based on the results of Magnuson-Stevens Fishery Conservation and Management Act and/or Endangered Species Act section 7 consultation(s) with the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service.

h. This Order may be reopened and modified to incorporate conforming monitoring requirements and schedule dates for implementation of the Comprehensive

Monitoring Program for Santa Monica Bay (Santa Monica Bay Restoration Commission, January 2007).

i. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

   i. Violation of any term or condition contained in this Order;

   ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or

   iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

j. The filing of a request by the Permittee for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

k. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board and USEPA may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

l. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Regional Water Board and USEPA will revise and modify this Order in accordance with such standards.

m. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.

n. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to be consistent with the Toxicity Plan that is subsequently adopted by the State Water Board promptly after USEPA-approval of such plan.

o. This Order may be reopened for modification, or revocation and reissuance, as a result of TST "Fail" results.

p. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, a new state-wide plan, new laws, or new regulations. For example, this permit may be reopened to revise the Bacteria limitations contained in section V.A.1.b of this Order if the State Water Board's proposed Amendment to the Water Quality Control Plan for Ocean Waters of California - Bacteria Provisions and a Water Quality Standards Variance Policy is adopted by the SWRCB and is subsequently approved by OAL and USEPA.

q. The Regional Water Board and USEPA will reconsider the ammonia limits and may reopen the Order if the Permittee has demonstrated that conservation efforts and recycling projects have caused an increase in the ammonia concentration, the plant is optimized with respect to ammonia control, and the Permittee provides justification that the proposed modification will not impact the beneficial uses of the receiving water.

r. This Order may be reopened and modified, to remove the storm water requirements from this Order, provided the Discharger successfully enrolls for coverage under the Statewide General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Toxicity Reduction Requirements**

i. Hyperion Ammonia and Acute Toxicity Special Study: In coordination with the City of Los Angeles, the Permittee shall participate in the special study, described in Hyperion Order R4-2017-0045, that evaluates the projected effects of water conservation and planned recycling on effluent acute toxicity and ammonia, including a mass balance of nitrogen species through both the HTP and the LWRF and an assessment of operational and/or process alternatives (e.g. treatment optimization, additional treatment, additional dilution credits) to address projected compliance with acute toxicity and ammonia water quality objectives. The Permittee shall actively participate in this study to identify and evaluate the nitrogen species material balance at the LWRF for both the current and future scenarios identified in the City of Los Angeles' work plan. In addition, LWRF shall supply brine effluent samples and any other technical information required to fully evaluate ammonia and acute toxicity in the combined effluent from the HTP and the LWRF brine. As required by the Hyperion Order R4-2017-0045, the Ammonia and Acute Toxicity Special Study Draft Work Plan is due from City of LA to the Regional Water Board Executive Officer and the USEPA Water Division Director by April 1st, 2018. The draft work plan was received on March 13, 2018, and is under review by Regional Water Board and USEPA staff. If necessary, the Permittee shall be required to submit a supplement to the City's draft Work Plan to include the contributions to the study concerning the LWRF and to address any associated comments from the Regional Water Board. The combined special study report shall be submitted no later than April 1st, 2020.

ii. LWRF Combined Effluent Chronic Toxicity Special Study: The Discharger shall repeat the chronic toxicity monitoring study, conducted in 2015, to monitor the impact of the combined West Basin LWRF brine and Hyperion Treatment Plant effluent on chronic toxicity at Discharge Point 001, as specified in Section V of the Monitoring and Reporting Program (Attachment E). The singular and synergistic toxic effects will be documented through toxicity tests at varying brine and HTP effluent concentrations. A draft LWRF Combined Effluent Toxicity Special Study Work Plan, including a proposed schedule, shall be submitted no later than December 15, 2018, with the City of Los Angeles' participation, for approval by the Regional Water Board Executive Officer and the USEPA Water Division Director. The special study report shall be submitted no later than December 14, 2020.

The Permittee shall also prepare and submit a copy of the Permittee's initial investigation Toxicity Reduction Evaluation (TRE) work plan in accordance with Monitoring and Reporting Program section V.

b. **Fire Retardant Special Study**

The Permittee shall propose a special study that evaluates polybrominated diphenyl ethers (PBDE), which are flame retardants and chemicals of emerging concern, in

the effluent concentration and mass loadings to the receiving water. The Permittee shall submit a Special Study Work Plan for approval by the Regional Water Board Executive Officer and the USEPA Water Division Director within one year of the effective date of this Order and submit the special study report no later than two years before the permit expires. The Discharger may complete the study independent of the City of Los Angeles. The study shall include the following:

i. Composite sampling of LWRF brine on at least two occasions,

ii. Description of the analytical technique used to characterize PBDE and a discussion of its advantages and limitations.

iii. Identification of the flow from LWRF and the flow from HTP on the sample days, with a calculation of the mass discharged from LWRF.

c. **Treatment Plant Capacity (Not Applicable)**

3. Best Management Practices and Pollution Prevention

a. **Storm Water Pollution Prevention Plan (SWPPP) and Best Management Practices Plan (BMPP) – Refer to Attachment I**

The Discharger shall submit, within 120 days, of the effective date of this Order:

i. A SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment I of this Order.

ii. A BMPP that will be implemented to reduce the discharge of pollutants and/or trash to the receiving water. The BMPP may be included within the SWPPP as a description of best management practices (BMPs). Attachment I provides information regarding the description of BMPs. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the state. Further, the Discharger shall assure that the storm water discharges from the Facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that any potential unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters

iii. A sampling program for all storm water that enters containment structures where percolation may allow contamination of underlying groundwater which has a designated municipal beneficial use.

iv. Plans shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify, on a map of appropriate scale, the areas that contribute runoff to the permitted discharge point. The Discharger shall describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material.

The Discharger shall implement the SWPPP and BMPP within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the

Regional Water Board, whichever comes first. The SWPPP and the BMPP shall be reviewed annually. Updated information shall be submitted to the Regional Water Board within 30 days of revision.

b. **Pollutant Minimization Program**

Reporting protocols in the MRP describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported ML and Method Detection Limit (MDL) are provided in the Ocean Plan. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity at the instream waste concentration, health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML;

ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board and USEPA may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board and USEPA:

i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and

v. An annual status report that shall be sent to the Regional Water Board and USEPA including:

(a) All PMP monitoring results for the previous year;

(b) A list of potential sources of the reportable pollutant(s);

(c) A summary of all actions undertaken pursuant to the control strategy; and

(d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications.

a. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR, title 23, division 3, chapter 26 (CWC sections 13625 – 13633).

b. The Permittee shall provide safeguards to assure that, should there be a reduction, loss, or failure of electric power, the Permittee shall comply with the terms and conditions of this Order/Permit. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures or other means.

5. Special Provisions for Biosolids

a. **Biosolids Disposal Requirements – Refer to Attachment H**

6. Spills or Unauthorized Discharges

a. **Major Spills (more than 50,000 gallons)**

The Permittee shall immediately (but no later than two hours) notify the Regional Water Board and County Health or the local health department, if applicable, by telephone or electronic means of an unauthorized discharge of more than fifty thousand (>50,000) gallons. The DDW must be contacted if a drinking water source is threatened by the spill. If the environment is endangered by the spill, the California State Department of Fish and Wildlife must be contacted. Written confirmation must be provided electronically (e.g., email or fax) to all agencies within three (3) business days from the date of notification. The phone number for reporting spills to the Regional Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of spills to the Regional Water Board are (213) 305-2284 and (213) 305-2253.

Information provided shall include the date and time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume of the spill or flow if the spill is ongoing, the estimated time of repair, the cause of the spill, the agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions.

7. Other Special Provisions (Not applicable)

8. Compliance Schedules (Not applicable)

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the corresponding effluent limitation and greater than or equal to the reporting level (RL) or minimum level (ML).

B. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Permittee may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is collected during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee may be considered out of compliance for that calendar month. For those average monthly effluent limitations that are based on the 6-month median water quality objectives in the 2015 Ocean Plan, the daily value used to calculate these average monthly values for intermittent discharges, shall be considered to equal zero for days on which no discharge occurred. The Permittee will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar month with respect to the AMEL.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Permittee will have demonstrated compliance with the AMEL for each day of that month for that parameter.

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Permittee may collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples estimated from the "Multiple Sample Data Reduction" section above, will be used for compliance determination.

In the event of noncompliance with an AMEL, the sampling frequency for that parameter shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

D. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is collected during the calendar week and the analytical result for that sample exceeds the AWEL, the Permittee will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar week with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

E. Maximum Daily Effluent Limitation (MDEL)

If a 24-hour composite sample exceeds the MDEL for a given parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for that parameter for that one day only within the reporting period. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

F. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. Six-month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is collected. If only a single sample is collected during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Permittee will be considered out of compliance for the 180-day period. For any 180-period during which no sample is collected, no compliance determination can be made for the six-month median effluent limitation.

I. Annual Average Effluent Limitation

If the annual average of monthly discharges over a calendar year exceeds the annual average effluent limitation for a given parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for each month of that year for that parameter. A potential violation of the annual average effluent limitation will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is collected over a calendar year, no compliance determination can be made for that year with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

J. Percent Removal

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

Percent Removal (%) = $[1-(C_{Effluent}/C_{Influent})] \times 100$ %

When preferred, the Permittee may substitute mass loadings and mass emissions for the concentrations.

K. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

L. Compliance with Single Constituent Effluent Limitations

Permittees may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section B "Multiple Sample Data Reduction" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the ML or RL.

M. Compliance with effluent limitations expressed as a sum of several constituents

Permittees are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

N. Compliance with Total Maximum Daily Loads (TMDLs)

The NPDES regulations at 40 CFR § 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. There are three TMDLs for the Santa Monica Bay: the *Santa Monica Bay Beaches Bacteria TMDL*, the *Santa Monica Bay Nearshore and Offshore Debris TMDL*, and the *Santa Monica Bay TMDL for DDT and PCBs.*

Santa Monica Bay Beaches Bacteria TMDL. WLAs in the *Santa Monica Bay Beaches Bacteria TMDL* are expressed as an allowed number of exceedance days and Hyperion has an individual WLA of zero days of exceedances during both summer dry weather and winter dry weather.

Santa Monica Bay Nearshore and Offshore Debris TMDL. The MS4 permit for Los Angeles County (Order No. R4-2012-0175, NPDES No. CAS004001) includes shoreline monitoring to

ensure that HTP meets the WLA of 0 days of exceedances contained in the Santa Monica Bay Beaches Bacteria TMDL. For point sources, the debris TMDL is implemented through the LA County MS4 and Ventura County MS4 permits (i.e. no Waste Load allocation for Hyperion or West Basin's Edward C. Little Water Recycling Facility (LWRF)).

Santa Monica Bay TMDL for DDT and PCBs. The *Santa Monica Bay TMDL for DDT and PCBs* includes WLAs for LWRF. The total loads of DDT and PCBs from the HTP, the Joint Water Pollution Control Plant, and West Basin's Water Recycling Plants (including LWRF and the West Basin Carson facility) shall not be more than 14,567 g/yr for DDT and 351 g/yr for PCBs. To account for these mass transfers, the TMDL recommends that annual "floating" WQBELs (in g/yr) for the LWRF be established as:

LWRF WLA = C_{HTP} ($Q_{HTP\ to\ Little}$)

where:

C_{HTP} is the concentration-based WLA for the Hyperion effluent (10.1 ng/L for DDT and 0.271 ng/L for PCBs)

$Q_{HTP\ to\ LWRPF}$ is the flow diverted from Hyperion to LWRF

The *Santa Monica Bay TMDLs for DDTs and PCBs* requires that all discharges with WLAs be considered by NPDES permit writers to have reasonable potential under 40 CFR 122.44(d); that the concentration-based WLAs for DDT and PCBs be implemented as monthly average WQBELs in permits for plants discharging to the ocean; that permit writers should not further adjust the WLAs for dilution or background seawater concentration when calculating WQBELs; that the mass-based WLAs be directly implemented as annual average WQBELs in permits.; and that the annual mass emissions (in g/year) for DDT and PCBs discharges be calculated and reported as the sum of monthly emissions on a calendar year basis according to the following formula:

Annual Mass Emission, g/year = $\sum\ (Monthly\ Mass\ Emission\ Rates, g/month)$

For discharges with less frequent DDT and PCBs monitoring than monthly, the annual mass emission (in g/yr) should be calculated using the arithmetic average of available monthly mass emissions as follows:

$$Annual\ Mass\ Emission, g/year = \left(\frac{\sum Monthly Mass Emission, g/mo}{Number of Monthly Mass Emissions Calculated}\right) * 12 mo/year$$

where:

$$Monthly\ Mass\ Emission, kg/mo = \left(\frac{3{,}785}{N}\right) * \left(\sum_{i=1}^{N} Q_i C_i\right) * 30.5 = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} Q_i C_i\right)$$

and where:

C_i = DDT or PCBs concentration of each individual sample, ng/l

Q_i = discharger flow rate on date of sample, million gallons per day (mgd)

N = number of samples collected during the month 0.003785 = conversion factor to convert (ng/l)*(mgd) into g/day

30.5 = number of days in a standard month

0.1154425 = product of (conversion factor)·(number of standard days per month)

and where Q_i for intermittent discharges (dischargers who do not discharge every day in a calendar month, or have no discharge for an entire month ($Q_i = 0$)) should be calculated as follows:

$$Q_i = \left(\frac{\sum_{d=1}^{D} Q_d}{30.5} \right)$$

where:

Q_d = is the total flow for the day when discharge occurred, million gallons per day (mgd)

D = total number of days where discharge occurred in a month

30.5 = number of days in a standard month

Consistent with the federal requirement and with the *NPDES Permit Writer's Manual* (EPA-833-K-10-001, September 2010), Average Monthly and Annual Average mass based effluent limitations have been included in this Order/Permit for DDT and Total PCBs. Consistent with the TMDL, concentration based effluent limits are not established.

O. Mass Emission Rate

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lbs/day)} = \frac{8.34}{N} \sum_{i=1}^{N} Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N} \sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be collected on any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

P. Bacterial Standards and Analysis

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_3)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliform, at a minimum, and 1 to 1000 per 100 mL for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.

4. Detection methods used for *Enterococcus* and shall be those presented in Table 1A of 40 CFR § 136 or in the USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

5. The existing water quality objectives for bacteria may be superseded by the *Ocean Plan Bacteria Amendment* following completion of the adoption and approval processes.

Q. Single Operational Upset (SOU)

A SOU that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Permittee's liability in accordance with the following conditions:

1. A SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

2. A Permittee may assert SOU to limit liability only for those violations which the Permittee submitted notice of the upset as required in Provision V.E.2 (b) of Attachment D – Standard Provisions.

3. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).

4. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples

Areas of Special Biological Significance (ASBS)
Ocean areas designated by the State Water Board as requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Biosolids
Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 C.F.R. Part 503.

Carcinogenic
Pollutants are substances that are known to cause cancer in living organisms.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Composite Sample, 24-hour
For flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurements:

1. No fewer than eight individual sample portions taken at equal time intervals for 24 hours, The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,
2. No fewer than eight individual sample portions taken of equal time volume taken over a 24-hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

The compositing period shall equal 24 hours.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

DDT
The sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Degrade
Shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Enclosed Bays
Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries and Coastal Lagoons
Waters located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in CWC section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Grab Sample
An individual sample collected during a period of time not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

Halomethanes, Total
The sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH
The sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily

from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Water Board, whichever results in the lower estimate for initial dilution.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

In-stream Waste Concentration (IWC)
The concentration of a toxicant or the parameter toxicity in the receiving water after mixing.

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera *Macrocystis* and *Nereocystis*. Kelp beds include the total foliage canopy of *Macrocystis* and *Nereocystis* plants throughout the water column.

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = X(n+1)/2. If n is even, then the median = (Xn/2 + X(n/2)+1)/2 (i.e., the midpoint between the n/2 and n/2+1).

Method Detection Limit (MDL)
The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B.

Minimum Level (ML)
The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the

lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Natural Light
Reduction of natural light may be determined by the Regional Water Board and USEPA by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board and USEPA.

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the State could affect the quality of the waters of the State, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls) as Aroclors
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

PCBs as Congeners
The sum of the following 41 individually quantified PCB congeners or mixtures of isomers of a single congener in a co-elution: PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

PCBs, Total
For compliance with the final effluent limitations based on the TMDL WLAs, Total PCBs shall be PCBs as Aroclors or PCBs as congeners, whichever concentration is greater.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Phenolic Compounds (chlorinated)
The sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

Phenolic Compounds (non-chlorinated)
The sum of 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and phenol.

Pollutant Minimization Program (PMP)
Waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority

pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board and USEPA may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in CWC section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board), Regional Water Board, or USEPA.

Publicly Owned Treatment Works.
A treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality which has jurisdiction over the Indirect Discharges to and the discharges from such treatment works (40 CFR § 403.3(q).).

Reported Minimum Level
The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Permittee for reporting and compliance determination from the MLs included in this Order/Permit. The MLs included in this Order/Permit correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board and USEPA either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-specific analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML. (See Ocean Plan section III.C.6.)

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Test of Significant Toxicity (TST)
A statistical approach used to analyze toxicity test data. The TST incorporates a restated null hypothesis, Welch's t-test, and the biological effect thresholds for chronic and acute toxicity.

Toxicity Identification Evaluation (TIE)
Set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of Facility operations and maintenance practices, and best management practices. A TIE may be required as part of the TRE, if appropriate.

Waste
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.